NERSA XiNa Solar One license application – public hearing

Kimberley, 18 February 2014

XiNa Solar One – 100MW trough
XiNa Solar One

- Located app 40km NE from the town of Pofadder – Khai Ma municipality, NC province just off the R358 Onseepkans road.
- 3000ha farm owned by Abengoa Solar and the IDC, of which app 1100ha has been permitted for solar construction.
- The Eskom Paulputs transmission substation is on the land owned by Abengoa Solar and the IDC.
- Orange river app 29km away.
- The plant is to be located next to the 100MW Kaxu Solar One that is currently under construction, forming a 200MW solar platform.
XiNa Solar One

- Capacity – 100MW
- Full-load molten salt storage capacity of 5 hours, to be used for generation from 16:30 to 21:30.
- Collector surface > 850,000m²
- Construction to take place over 27 months
- Plant scheduled for operation by mid to end 2016
XiNa Solar One

- The total project cost, including financing and project company cost is in excess of R8 Billion.
- Ownership:

  ![Pie chart showing ownership distribution]

- Construction jobs will peak at approximately 1,400 on site.
- 45 Permanent employees will be employed over the 20 year operational phase.
- 200 Additional jobs due to services and supplies from the greater area are expected.
- More than 40% of the plant will be locally sourced.
- Xina will produce roughly 380GWh annually, equating to a 44% CF.
- >350 000 tons reduction in CO₂ emissions.
XiNa Solar One
XiNa Solar One feasibility

- The technical solution and EPC offer were reviewed both by ILF as owner’s engineer and Mott MacDonald as Lenders’ Technical Advisor.

- The solar resource TMY was produced by GeoModel Solar and reviewed by Mott MacDonald.

- Plant production was calculated by Mott MacDonald and compared with the production as determined by Abengoa Solar. The values were comparable.

- The financial model was reviewed by the Sponsors, Lenders, model auditor and Mott MacDonald and found correct.

- From the technical and financial review it is clear that the technical solution is appropriate, the production estimates acceptable and that the project satisfies the financial requirements of its Lenders and returns required by its Sponsors.
Economic development – community activities

- Social spend - Infrastructure
  - Medical support, facilities & staff to support health @ schools
  - Transport, transport service for kids & improved roads for access
  - Facilities - new daycare, improve schools, recreation

- Focus on the youth
  - Early childhood development (0-3 years)
  - Pre-primary school (4-6 years)
  - Primary school (7 upwards)

- Social spend - Child support
  - Teachers - more preschool + additional staff + training of existing

- Family
  - Education re childcare, employment to meet needs

- Nutrition
  - Feeding schemes

- Enterprise development
  - Socio-Economic Support
    - Construction company support school repairs, day care centres, etc.
    - Agriculture: grow crops for feeding schemes, soup kitchens. Composting to support agriculture
    - Manufacturing, arts and crafts for sale and income to families to support children’s needs

  - Power station operational support
    - Community based security company
    - Courier service
    - Telecom service provider
    - Local retailer providing catering services for the South African workers
    - Tools and equipment sales and repair shop
    - Ancillary services required at each of the plants (small support service work packages)